



**Electro-Voice®**  
a MARK IV company

## Model PL20

### Dynamic Cardioid Instrument Microphone

#### SPECIFICATIONS

##### Element:

Dynamic

##### Frequency Response:

45-18,000 Hz

##### Polar Pattern:

Cardioid

##### Impedance:

50, 150, and 250 ohms

##### Sensitivity,

Open Circuit Voltage:

1.5 mV/Pascal at 1,000 Hz

Power Level:

-57 dB at 1,000 Hz

(0 dB = 1 mW/Pascal)

##### Case Material:

Steel

##### Dimensions:

216.7 mm (8.53 in.) long

54.4 mm (2.14 in.) widest diameter

49.2 mm (1.94 in.) body diameter

##### Finish:

Non-reflecting gray

##### Net Weight:

737 g (1 lb, 10 oz)

##### Accessories Furnished:

81715 stand adapter

Zippered vinyl carrying case

##### Optional Accessories:

309 shock mount

PLC-25X cable

PLC-25P cable

#### DESCRIPTION AND APPLICATIONS

The Electro-Voice Model PL20 is a professional quality dynamic cardioid microphone created especially for recording, broadcast, and sound reinforcement applications requiring essentially flat response over a very wide frequency range. The wide frequency response, coupled with excellent transient response, makes the PL20 easily comparable to the finest condenser cardioid microphones for pick up of musical instruments or vocals. Unlike standard condenser cardioid microphones, however, the PL20 is virtually free of bass-boosting "proximity effect" when used close, because in design it is a Continuously Variable-D® microphone. An easily operated "bass tilt down" switch corrects spectrum balance for use in long-reach situations, or other applications where bass attenuation is needed.

A true cardioid microphone, the PL20 offers greatest rejection at 180° off axis — directly to the rear of the microphone. Directional control is so effective that the frequency response is nearly independent of angular location of sound source, creating virtually no off-axis coloration yet providing greatest possible rejection of unwanted sounds.

An integral blast and wind filter covers each acoustic opening on the PL20. At recording sessions and on stage, singers can "close talk" the microphone, singing with their lips almost touching the grille screen with no worry of "p-pops" or excessive sibilance. Part of the filter also shock mounts the internal microphone element, reducing the transfer of vibrations from external sources.

Using the mechanical nesting concept of design — the internal transducer parts are nested one within another — the PL20 is able to withstand all rigors of professional use.

The PL20 is supplied wired for 150 ohms impedance. Fifty- and 250-ohm impedances are available through a simple wiring change (see "Changing Impedance Connections" section).

#### CHANGING IMPEDANCE CONNECTIONS

The PL20 is shipped wired for 150 ohms. Fifty or 250 ohms may be obtained, however, through the following procedure:

1. Refer to Figure 4. Insert a screwdriver in small hole "A" at the rear of the microphone. Turn counterclockwise until the captive screw "bottoms."
2. Gently remove insert "B" exposing rear cover hold-down screw "C" (Allen head).
3. Disengage screw "C" from main microphone body with an Allen wrench.
4. Carefully remove rear cover "D" to expose several solder terminals as shown in Figure 5.
5. Impedance may now be changed by moving the red wire to one of the open solder terminals (marked 250 and 50).
6. Replace the rear cover by reversing Steps 1 through 4. *Be sure that locating pin "E" engages the rear cover "D" as the cover is re-installed. Be sure that no wires are pinched in the re-assembly process.*

The PL20 is now ready for operation at the newly selected impedance.

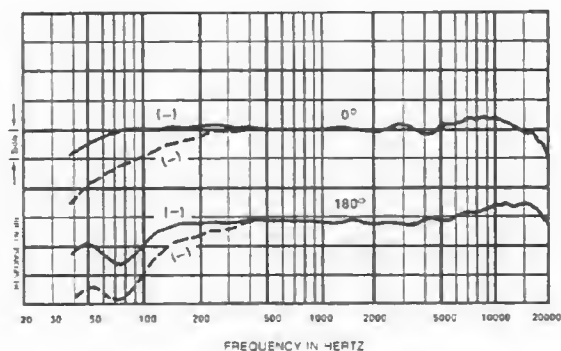


FIGURE 1 — Frequency Response

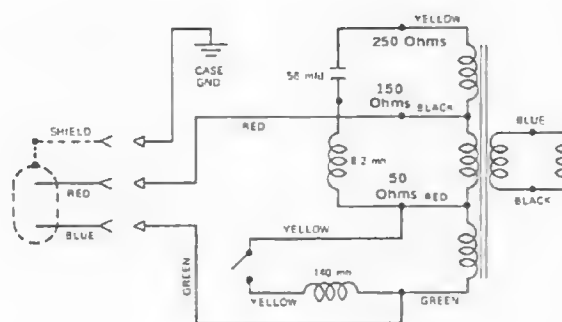


FIGURE 2 — Wiring Diagram

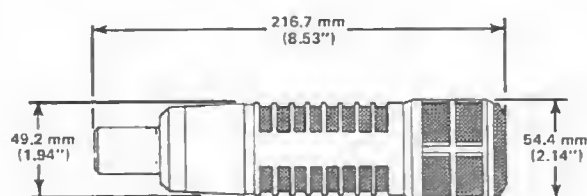


FIGURE 3 — Dimensions

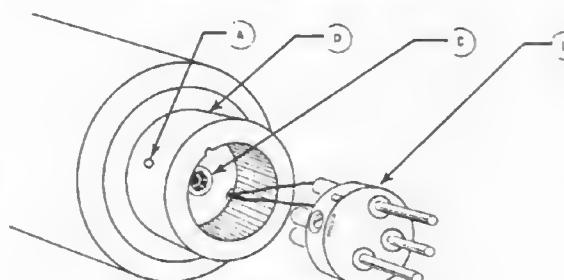


FIGURE 4 — Disassembly

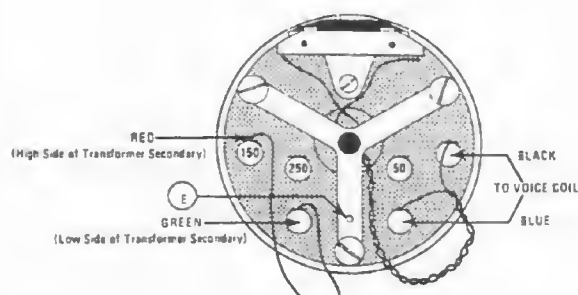


FIGURE 5 — Changing Impedance Connections

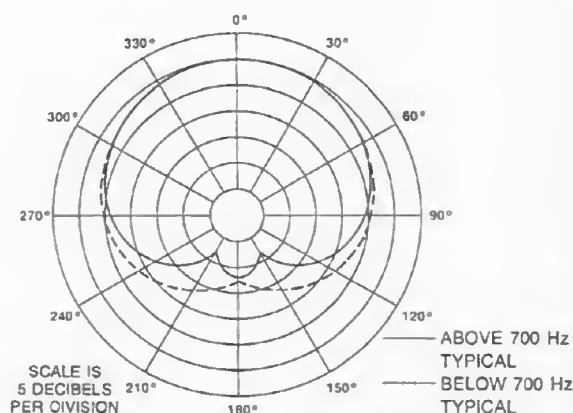


FIGURE 6 — Polar Response

#### WARRANTY (Limited)

Electro-Voice Professional, PL & BK Series Microphones are guaranteed against malfunction from any cause for a period of two years from date of original purchase. Also, these microphones are guaranteed without time limit against malfunction in the acoustic system due to defects in workmanship and material. Any active electronics incorporated in the microphone are guaranteed for three years from date of original purchase for parts and labor against such malfunction. If such malfunction occurs, microphone will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper

Electro-Voice service facility. Unit will be returned prepaid. Warranty does not extend to finish, appearance items, cables, cable connectors, switches, or malfunction due to abuse or operation under other than specified conditions, nor does it extend to incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. Repair by other than Electro-Voice or its authorized warranty service agencies will void this guarantee. A list of authorized warranty service centers is available from Electro-Voice, Inc., 600 Cecil Street, Buchanan, MI 49107 (AC/616-695-6831);

or Electro-Voice West, 8234 Dce Avenue, Visalia, CA 93291 (AC/209-651-7777). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107.

Specifications subject to change without notice.



**ELECTRO-VOICE, INC., 600 Cecil Street, Buchanan, Michigan 49107**

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